

ABSTRACT OF THE DISCLOSURE

A "primal ascent" technique for scheduling the shared use of a limited resource may be applied to scheduling users in a high data rate (HDR) communication network, such as in a HDR network based on the TIA/EIA/IS-856 air interface standard. In a HDR network, active users share the air interface, and the network delivers data to individual users through the air interface one at a time. The primal ascent approach to user scheduling accommodates a flexible range of utility function types, including non-differentiable types, where utility functions describe the cost, benefit, or revenue gain associated with serving users. Primal ascent techniques allow service providers to, among other things, use different types of utility functions for differentiating between user types or associated grades of service, and allow them to use utility functions that change over time.